# **EXERCISE PROGRAMS**

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### **COURSE OUTLINE**

- What is exercise?
- Why should we exercise?
- Exercise equipment
- Exercise frequency / duration
- Types of exercise
- Wheelchair exercises
- Impact of exercise
- References and resources

### What is exercise?

- physical activity that is planned, structured, and repetitive for the purpose of conditioning any part of the body.
- activity performed in order to develop or maintain physical fitness and overall health

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### Why should we exercise?

- Benefits of performing physical exercise:
  - Improved muscle strength and flexibility
  - Improved endurance and performance
  - Improved cardiovascular / respiratory function
  - Improved brain functions (memory)
  - Decreased risk of health conditions / diseases

### **Exercise Precautions**

- IMPORTANT: Before you start exercising, make sure you clear any physical activity with your doctor, especially if you have:
  - a heart condition
  - breathing difficulties or conditions
  - history of falls
  - history of seizures
  - a physical disability

### **Exercise Equipment**

- Free weights and pulley systems
- Resistance bands
- Exercise / Swiss balls
- Exercise equipment for use in the pool
- Low-tech / alternative exercise equipment
- Your own body weight as resistance

### Free Weights and Pulley Systems





### **Resistance Bands**





### **Exercise Balls**



### Aquatic Exercise Equipment





### Low Tech Equipment Alternatives







### **Types of Exercise**

- <u>Stretching</u> moving body parts to lengthen muscles and connecting components
- <u>Aerobic</u> exercise designed to increase heart rate
- Resistive exercise that involves pushing / pulling against resistance
- <u>Aquatic</u> exercise performed in the water

### Stretching

- IMPORTANT: always try to stretch before and after you perform physical exercises
  - Reduces risk of injury
  - Improves performance

### Assistive stretching

- If you need help with stretching, the following are examples of assistive stretching techniques:
  - Head / Neck stretch
  - Shoulder stretch
  - Hamstring stretch
  - Heelcord stretch
  - Hip flexor stretch

### **Self-stretching**

- Here are some self-stretching exercises you can do by yourself:
  - Head / Neck stretch
  - Hamstring stretch
  - Heelcord stretch

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# Head and Neck Stretch Hamstring Stretch **Heelcord Stretch**

### **Aerobic Exercise**

- These are a few aerobic exercises you can try:
  - Jumping Jacks
  - Jump Rope
  - Running in place
  - Step Aerobics

### **Resistive Exercise**

- USING YOUR OWN BODY WEIGHT
  - Push-ups, sit-ups, bridges
  - Squats, hands-and-knees
  - Exercise on steps / stairs

### Push-Ups

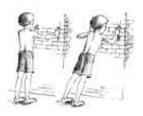


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### Push-Ups (easier)



### Push-Ups (easiest)



### **Aquatic Exercise**

- Here are some exercises that can be done in a pool:
  - Walking across pool
  - $\blacksquare$  Jumping up and down
  - Marching in place
  - Wall kicks

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WHEELCHAIR PUSH-UPS

### Wheelchair Exercises



REACHING IN WHEELCHAIR

### Wheelchair Exercises



RESISTANCE BAND

## Impact of Exercise

- Personal Stories:
  - Kathy
  - Jim
  - **■**John

### References

- All pictures included in this presentation were taken from images.google.com
- For videos on specific exercises and activities, visit <a href="www.youtube.com">www.youtube.com</a> and type "exercise" or other keywords like "wheelchair exercises"

### **Resources**

- For more information related to Physical Therapy for individuals with developmental disabilities, visit these sites:
  - www.pediatricapta.org
  - http://physicaltherapy.about.com/od/pediatricphysicaltherapy/Pediatric Physical Therapy.htm
  - <a href="http://en.wikipedia.org/wiki/Physical\_therapy">http://en.wikipedia.org/wiki/Physical\_therapy</a>

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